

## CHAPTER SEVEN

# FUEL AND EXHAUST SYSTEMS

The fuel system consists of the fuel tank, the shutoff valve, a single carburetor and an air filter.

The exhaust system consists of an exhaust pipe and muffler assembly.

This chapter includes service procedures for all parts of the fuel system and exhaust system. Air filter service is covered in Chapter Three.

Carburetor specifications are covered in **Table 1**. **Table 1** and **Table 2** are located at the end of this chapter.

### CARBURETOR OPERATION

An understanding of the function of each of the carburetor components and their relation to one another is a valuable aid for pinpointing a source of carburetor trouble.

The carburetor's purpose is to supply and atomize fuel and mix it in correct proportions with air that is drawn in through the air intake. At the primary throttle opening (idle), a small amount of fuel is siphoned through the pilot jet by the incoming air. As the throttle is opened further, the air stream begins to siphon fuel through the main jet and needle jet. The tapered needle increases the effective flow capacity of the needle jet as it is lifted, in that it occupies progressively less of the area of the jet.

At full throttle the carburetor venturi is fully open and the needle is lifted far enough to permit the main jet to flow at full capacity.

The choke circuit is a "bystarter" system in which the choke lever opens a valve rather than closing a butterfly in the venturi area as on many carburetors. In the open position, the slow jet discharges a stream

of fuel into the carburetor venturi, to enrich the mixture when the engine is cold.

### CARBURETOR SERVICE

Carburetor service (removal and cleaning) should be performed when poor engine performance or hesitation is observed. If, after servicing the carburetors and making the adjustments described in this chapter, the vehicle does not perform correctly and assuming that other factors affecting performance, such as ignition timing and condition, etc., are correct, the vehicle should be checked by a dealer or a qualified performance tuning specialist.

### CARBURETOR

#### Removal/Installation

1. Place the vehicle on level ground and set the parking brake or block the wheels so the vehicle will not roll in either direction.
2. Remove the seat.
3. Remove the fuel tank as described in this chapter.
4. Remove the bolts securing the fuel tank bracket (**Figure 1**) and remove the bracket.
5. Loosen the screw (A, **Figure 2**) on the clamping band securing the carburetor to the insulator on the cylinder head.
6. Loosen the screw (B, **Figure 2**) on the clamping band securing the carburetor to the air filter air box connector. Slide both clamping bands away from the carburetor.

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